UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: SEP 0 1 1992

SUBJECT: L.E. Carpenter Revised Feasibility Study Report:
Air Programs Branch and Air Compliance Branch Review

FROM: Peter Belmonte, Environmental Engineer
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TO:
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Through: Rudolph Kapichak, Chief
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The Air Programs Branch and Air Compliance Branch have completed their review of the revised Feasibility Study for the L.E. Carpenter site located in Wharton, Morris County, New Jersey.

Site Background:

The L.E. Carpenter facility was designed and operated as a manufacturing facility for vinyl wall coverings from 1943 to 1987. The site occupies approximately 14.6 acres and is situated within a mixed commercial/industrial/residential area. The manufacturing process involved the generation of waste solvents including xylene and methyl ethyl ketone, the collection of solvent fumes via condensers, the collection of particulate matter via a dust collector, and discharge of non-contact cooling water to the Rockaway River. From 1963 to 1970 L.E. Carpenter disposed of its wastes, including polyvinyl chloride waste material, into an unlined on-site impoundment. This FS addresses soil contaminated with diethyl hexyl phthalate (DEHP), soil "hot spots" contaminated with lead, antimony, and PCBs, and groundwater contaminated with DEHP, xylenes, and ethylbenzene. The remedial alternatives that were evaluated for this site are:

- 1: No Action
- 2: Institutional Controls
- 3: Closure
- 4: In-Situ Bioremediation
- 5: Soil Washing
- 6: Incineration

Alternative 3 (Closure) or Alternative 4 (In-Situ Bioremediation) are the recommended alternatives for this site. In-situ bioremediation is an innovative technology which presents a potential for volatilization of organic pollutants.

Comments:

- A list of potential ARARs is attached.

- The report states that if Alternative 3, Closure, is the selected remedy, dust control methods will be implemented to minimize particulate emissions during cover installation. If Alternative 4, in-situ

bioremediation, is the selected remedy, VOC emissions from groundwater treatment operations via a bioreactor and accumulation tank will be treated by vapor-phase carbon adsorption. APB suggests that the controlled VOC emissions be estimated and ambient air concentrations at nearby receptors modeled to ensure that the public is protected during remediation.

If you have any questions regarding this review or would like assistance in modeling air impacts, please contact me at extension 9893.

Attachment

cc: R. Basso, ERRD-NJSBII
A. Devine, AWM-AP (w/o attachment)
P. Foley, AWM-AC (w/o attachment)

Attachment
L.E. Carpenter Superfund Site Potential ARARs

General ARARs

40 CFR 50 National Ambient Air Quality Standards

§50.4 Sulfur Oxides

(a) 80 micrograms per cubic meter ($\mu g/m^3$) or 0.03 parts per million (ppm) annual arithmetic mean.
(b) 365 $\mu g/m^3$ (0.14 ppm) maximum 24 hour concentration not to be exceeded more than once per year.

§50.6 Particulate Matter

(a) 150 $\mu g/m^3$ for a 24 hour average concentration.
(b) 50 $\mu g/m^3$ for an annual arithmetic mean.

§50.8 Carbon Monoxide

(a) 1. For an eight hour averaging period the ambient concentration is not to exceed 10 milligrams per cubic meter (mg/m^3) (9 ppm) more than once a year.
2. For a 1 hour averaging period the ambient concentration is not to exceed 35 ppm (40 mg/m^3) more than once a year.

§50.9 Ozone

(a) Ambient concentrations are not to exceed 0.12 ppm (235 $\mu g/m^3$).

§50.11 Nitrogen dioxide

(a) Ambient concentrations are not to exceed 0.053 ppm (100 $\mu g/m^3$) for an annual arithmetic.

§50.12 Lead

Ambient concentrations are not to exceed 1.5 $\mu g/m^3$ for a calendar quarter arthmetic mean.

NJAC 7:27-13

13.3 Ambient air quality standards for suspended particulate matter

(a) Primary standards

1. During any 12-consecutive months, the geometric mean value of all 24-hour averages shall not exceed 75 $\mu g/m^3$; and
2. In any 12-consecutive months, 24-hour average concentrations may exceed 260 $\mu g/m^3$ no more than once.

13.4 Ambient air quality standards for sulfur dioxide

(a) Primary standards

1. During any 12-consecutive months, the arithmetic mean concentration of sulfur dioxide in ambient air shall not exceed 80 $\mu g/m^3$ (0.03 ppm); and
2. During any 12-consecutive months, 24-hour average concentrations may exceed 365 $\mu g/m^3$ (0.14 ppm) no more than once.

13.5 Ambient air quality standards for carbon monoxide

(a) Primary and secondary standards

1. During any 12-consecutive months, eight-hour average concentrations of carbon monoxide in ambient air may exceed 10 mg/m, no more than once; and
2. During any 12-consecutive months, one-hour average concentrations may exceed 40 mg/m^3 (35 ppm) no more than once.

13.6 Ambient air quality standards for ozone

(a) Primary standard

1. During any 12-consecutive months, daily maximum one-hour concentrations may exceed 0.12 ppm (235 $\mu g/m^3$) no more than once.

13.7 Ambient air quality standards for lead

(a) Primary and secondary standards

1. In any three consecutive months, the arithmetic mean of 24-hour averages shall not exceed 1.5 $\mu g/m^3$.

13.8 Ambient air quality standards for nitrogen dioxide

(a) Primary and secondary standards

1. In any 12 consecutive months, the arithmetic mean concentration shall not exceed 100 $\mu g/m^3$ (0.05 ppm).

NJAC 7:27-5

5.1 Definitions

Air pollution means the presence in the outdoor atmosphere of one or more contaminants in such quantities or duration as are, or tend to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property throughout the State and in such territories of the State as shall be affected thereby and excludes all aspects of employer-employee relationship as to health and safety.

5.2 General provisions

(a) No person shall cause, suffer, allow or permit to be emitted into the outdoor atmosphere substances in quantities which shall result in air pollution.

Excavation and Fugitve Dust ARARs

40 CFR 264 RCRA Standards

§264.251 Design and operating requirements.

(f) If any hazardous waste pile contains particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

§264.254 Monitoring and Inspection

(a) During construction or installation cover systems must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construciton or installation:

(1) Synthetic covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of:

(2) Proper functioning of wind dispersal control systems.

Subpart N - Landfills

§264.301 Design and operating requirements

(i) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind disperal.

To Be Considered:

Commonwealth of Puerto Rico Environmental Quality Board Regulation

Rule 404: Fugitive Dust

A) No person shall cause or permit any materials to be handled, transported, or stored without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. The use of water or suitable chemicals for the control of dust in the demolition of existing buildings, construction operations, the grading of roads or the clearing of land;

2. The application of asphalt, water, or suitable chemicals on dirt roads or roads under construction, materials, stockpiles, and other surfaces which can give rise to airborne dust;

4. The covering, at all times when in motion, of open bodied trucks transporting materials likely to give rise to airborne dust;

B) No person shall cause or permit the discharge of visible emissions of fugitive dust beyond the boundary line of the

property on which the emissions originate.

VOC ARARs

NJAC 7:27-16 Control and Prohibition of Air Pollution by Volatile Organic Substances

16.6 Source operations other than storage tanks, transfers, open top tanks, surface cleaners, surface coaters, and graphic arts operations

(a) No person shall cause, suffer, allow, or permit volatile organic substances (VOS) to be emitted into the outdoor atmosphere from any source operation in excess of the maximum allowable emission rate as determined in accordance with the procedure for using Table 4 (see the regulation for the procedure and for Tables 4 and 5).

NJAC 7:27-17 Control and Prohibition of Air Pollution by Toxic Substances

17.3 Storage, transfer, an use of toxic volatile organic substances

(b) In cases where the NJDEP or EPA determines that the equipment oroperating procedures as described i the Remedial Design do not represent advances in the art of control for the types and kind of TVOS emitted, The NJDEP or EPA will so notify the affected persons.

17.4 Discharge of Toxic Volatile Organic Substances

(a) No person shall cause, suffer, allow or permit any TVOS to be emitted from any source operation into the outdoor atmosphere unless such discharge is:

1. No less than 40 feet above grade; and
2. No less than 20 feet higher than any area of human use or occupancy within 50 feet; and
3. Directed vertically upward at a discharge velocity of 3600 feet per minute or greater.

(b) No person shall cause, suffer, allow or permit the emission of a TVOSinto the outdoor atmosphere from asystem equipment, or control apparatus not approved by the NJDEP or EPA as being effective in preventing aerodynamic downwash.